

## trans-Nerolidol

## Chemical Properties

CAS No. : 40716-66-3

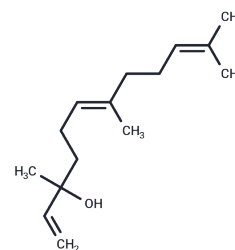
Formula: C<sub>15</sub>H<sub>26</sub>O

Molecular Weight: 222.37

Store under nitrogen

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	trans-Nerolidol is a sesquiterpene alcohol isolated from the above-ground parts of the Saharan Valerian plant with antifungal activity. trans-Nerolidol inhibits cell proliferation in a dose-dependent manner, and induces cell cycle arrest in the G1 phase.
Targets(IC50)	Antifungal

## Solubility Information

Solubility	Ethanol: miscible DMSO: 250 mg/mL (1124.25 mM),Sonication is recommended. DMF: miscible Ethanol:PBS(pH 7.2) (1:1): 0.5 mg/mL (2.25 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (14.84 mM),Sonication is recommended. 10% DMSO+90% Saline: 10 mg/mL (44.97 mM),Suspension. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.497 mL	22.485 mL	44.9701 mL
5 mM	0.8994 mL	4.497 mL	8.994 mL
10 mM	0.4497 mL	2.2485 mL	4.497 mL
50 mM	0.0899 mL	0.4497 mL	0.8994 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Hanušová V, et al. The effects of  $\beta$ -caryophyllene oxide and trans-nerolidol on the efficacy of doxorubicin in breast cancer cells and breast tumor-bearing mice. *Biomed Pharmacother.* 2017 Nov;95:828-836.

Chan WK, et al. Nerolidol: A Sesquiterpene Alcohol with Multi-Faceted Pharmacological and Biological Activities. *Molecules.* 2016 Apr 28;21(5):529.

Špičáková A, et al. beta-caryophyllene oxide and trans-nerolidol affect enzyme activity of CYP3A4 - in vitro and in silico studies. *Physiol Res.* 2019 Nov 22;68(Suppl 1):S51-S58.

Dong JR, et al. Nerolidol inhibits proliferation of leiomyoma cells via reactive oxygen species-induced DNA damage and downregulation of the ATM/Akt pathway. *Phytochemistry.* 2021 Nov;191:112901.

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